

REMARKS

Claims 3-10, all the claims pending in the application, stand rejected. Applicants respectfully traverse the rejection of these claims based on the following remarks.

Claim Rejections - 35 U.S.C. § 102

Claims 3, 4, 7 and 10 are rejected under 35 U.S.C. § 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Bennett et al (6,168,682).

As discussed on page 6 of the May 15, 2003 Amendment, Applicants again explain for the Examiner's understanding that the present invention is an improvement over the subject matter disclosed in EP 0855703 to Amo et al, which discloses an apparatus and method for laminating disk shaped substrates using a sequence of steps (Fig. 19) and a pressing apparatus (Figs. 8 and 10-12), where pressure is applied from the inside outwardly. There is no teaching or suggestion of the use of high-pressure environments to further reduce a problem with air bubbles in the manufactured product. The present invention creates a disk product by joining two disk-shaped substrates using a first pressure, and then placing the disk product within a high-pressure atmosphere. The method involves applying a first atmosphere that will drive the air bubbles from between the laminates prior to application of a second, highly pressurized atmosphere, as explained in Paragraphs 0083-0086. This feature is recited in the claims, particularly the method recited in independent claim 3 (and amended claims 5-8) where in step 3, a first pressure level to join the disks and form a disk product is recited, and in step 4), the disk product is subject to a high-pressure atmosphere at a second pressure level greater than the first pressure level.

The Examiner cites Bennett et al for teaching of a method to manufacture an optical recording medium comprising first and second disk members that have bonded together with a pressure sensitive adhesive layer. The Examiner points to two manufacturing steps in Bennett et al, including a step 1 where "the pressure sensitive adhesive layer is attached to the inner surface of the first member and laminated thereto with the aid of a release liner that facilitates expelling air out of the contact area between the inner surface of the first member and the pressure sensitive adhesive layer. In the second step, the second member is adhered with its inner surface onto the exposed surface of the pressure sensitive adhesive, after the release liner has been

removed. Thereafter, a rubber roll is passed over the exposed surface of the second member to provide a sufficient lamination pressure. The Examiner notes that Bennett recognizes that bubbles may form between the first and second inner surfaces and suggest transferring the bond of assemblies obtained in step 2 to a hydrostatic pressure chamber where there is subject to uniform hydrostatic gaseous pressure to completely remove the bubbles formed at the interfaces during the bonding steps 1 and 2 (col. 3, lines 34-49).

Applicants maintain that Bennett is distinguishable from the invention of claim 3, and newly amended claims 5-8 [rewritten into independent form incorporating the features of claim 3], because the force applied in pressurizing the upper disk shaped substrate against the lower disk shaped substrate in the first pressing step is less than the pressure of the high pressure atmosphere. In the rejection, the Examiner asserts that Bennett et al discloses that the hydrostatic pressure chamber to provide pressure between 10 and 40 bar (col. 13, lines 48-49) and asserts that the lamination pressure used to adhere the second disk to the adhesive layer with the use of a rubber lamination roller operated with hand pressure (col. 24, lines 56-63) would be inherently less than that of a the hydrostatic pressure at 40 bar.

Applicants respectfully submit that the flaw in the Examiner's reasoning is that each example presented in Bennett stands by itself, unless expressly defined to include features of other examples. Comparative Example 1, which is described at cols. 23-25 only uses a rubber lamination roller. There is no suggestion of the use of hydrostatic pressure in this example. Similarly, with regard to Example 3, which repeats the features of Comparative Example 1, the assembly was subjected only to hydrostatic pressure, rather than to rolling. Thus, Applicants submit that claim 3 cannot be anticipated by, nor is obvious in view of the disclosure of Bennett. As such, claim 3 is allowable.

Claim 4 is dependent on claim 3 and is therefore allowable at least for the same reasons noted above. Furthermore, with regard to claim 7, the method of claim 3 is further defined by a step of applying a first hold down pressure in the step of bonding the adhesive agent to the surface of the lower disk shaped substrate and applying a second hold down pressure in a step of pressurizing the second disk shaped substrate against the first disk shaped substrate by means of

the pressing body, thereby magnifying pressure of the high pressure atmosphere. This feature clearly is not shown in Bennett et al and would not be obvious from the teachings of Bennett et al. The concept of applying hold down pressures and also magnifying pressure of the high-pressure atmosphere is new and unobvious with regard to the prior art. Applicants have written claim 7 in independent form, incorporating the features of claim 3. Accordingly, claim 10 has been amended to be dependent from claim 7. No new features or matter appear in these amended claims.

Claims 3-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Amo et al (EP 0855703) in view of Bennett et al (6,168,682). Applicants respectfully traverse this rejection for at least the following reasons. As a preliminary matter, Applicants note that the Examiner inherently admits that Bennett et al does not teach the subject matter of claims 5, 6, 8 and 9. Moreover, Applicants have demonstrated above for the Examiner that the subject matter of claim 7 is not found in the reference, nor would it be obvious from the teachings of Bennett et al.

The Examiner looks to Amo et al for teaching of a method for laminating disk substrates according to the illustration in Fig. 19. The Examiner admits that Amo et al fails to suggest exposing both disk shaped substrates to a high-pressure atmosphere after pressing the upper disk shaped substrates against the lower disk shaped substrate. The Examiner refers to Bennett et al for a teaching of a method for manufacturing an optical recording medium comprising first and second disk members that are bonded together using high-pressure atmosphere. The combination of the two, a low pressure bonding and a high-pressure sealing and bubble removal process is not obvious since Bennett et al itself does not have such combination but uses the two bonding techniques alternatively. As already noted, Bennett's suggestion of the use of a rubber lamination roller at column 4, lines 56-63 is in place of a high-pressure application of force.

With regard to claims 5 and 6, Applicants submit that the application of a force such that a contact portion may be magnified from center side to the outside, as recited in claims 5 and 6, would not be obvious in combination with the steps recited in claim 3. Claims 5 and 6 have been rewritten into independent form, incorporating the features of claim 3.

Finally, claims 8 and 9, which state that the pressurizing step and exposing steps are conducted at a common one of a plurality of stations, would not be obvious to one skilled in the art, since Bennett teaches either a pressure applied by roller or a high pressure application with air, but not the two together. Conducting such steps at the same location would be a novel and unobvious result. Further, having such station present on a turntable arrangement would also involve novel and unobvious steps. Claim 8 has also been rewritten into independent form, incorporating the features of claim 3.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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